



JC04 Rec'd PCT/PTO 24 JUN 2005

PCT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Application No. : 10/532908 Confirmation No. N/A
Applicant : Armin Studer et al.
Filed : April 27, 2005
TC/A.U. : N/A
Examiner : N/A

Title : INTERVERTEBRAL DISK PROSTHESIS OR
ARTIFICIAL VERTEBRA
Docket No. : LUS-16017
Customer No. : 040854

LETTER

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir/Madam:

Enclosed herewith is an English translation of the International Preliminary Examination Report for filing in the above-identified application.

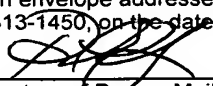
Respectfully submitted,

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By 
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I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on the date indicated below.



Signature of Person Mailing Paper

6/21/05

Date

David E. Spaw

Printed Name of Person Mailing Paper

Translation

Rec'd PCT/PTO 24 JUN 2005 #3
PCT/CH2002/000582

PATENT COOPERATION TREATY



PCT10/532908

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY
(Chapter II of the Patent Cooperation Treaty)

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference 1966/PCT	FOR FURTHER ACTION See Form PCT/IPEA/416	
International application No. PCT/CH2002/000582	International filing date (day/month/year) 28 October 2002 (28.10.2002)	Priority date (day/month/year)
International Patent Classification (IPC) or national classification and IPC A61F 2/44		
Applicant MATHYS MEDIZINALTECHNIK AG et al.		

1. This report is the international preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36.

2. This REPORT consists of a total of 5 sheets, including this cover sheet.

3. This report is also accompanied by ANNEXES, comprising:

a. ☒ (sent to the applicant and to the International Bureau) a total of 5 sheets, as follows:

☐ sheets of the description, claims and/or drawings which have been amended and are the basis of this report and/or sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions).

☐ sheets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the international application as filed, as indicated in item 4 of Box No. I and the Supplemental Box.

b. ☐ (sent to the International Bureau only) a total of (indicate type and number of electronic carrier(s)) _____, containing a sequence listing and/or tables related thereto, in computer readable form only, as indicated in the Supplemental Box Relating to Sequence Listing (see Section 802 of the Administrative Instructions).

4. This report contains indications relating to the following items:

☒ Box No. I Basis of the report

☐ Box No. II Priority

☐ Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability

☐ Box No. IV Lack of unity of invention

☒ Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

☐ Box No. VI Certain documents cited

☐ Box No. VII Certain defects in the international application

☐ Box No. VIII Certain observations on the international application

Date of submission of the demand 24 May 2004 (24.05.2004)	Date of completion of this report 27 January 2005 (27.01.2005)
Name and mailing address of the IPEA/EP	Authorized officer
Facsimile No.	Telephone No.

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.

PCT/CH2002/000582

Box No. I Basis of the report

1. With regard to the language, this report is based on the international application in the language in which it was filed, unless otherwise indicated under this item.

- ☐ This report is based on translations from the original language into the following language _____, which is language of a translation furnished for the purpose of:
- ☐ international search (under Rules 12.3 and 23.1(b))
- ☐ publication of the international application (under Rule 12.4)
- ☐ international preliminary examination (under Rules 55.2 and/or 55.3)

2. With regard to the elements of the international application, this report is based on *(replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report)*:

- ☒ The international application as originally filed/furnished
- ☒ the description:
- pages _____ 1-7 _____, as originally filed/furnished
- pages* _____ received by this Authority on _____
- pages* _____ received by this Authority on _____
- ☒ the claims:
- pages _____, as originally filed/furnished
- pages* _____, as amended (together with any statement) under Article 19
- pages* 1-25 received by this Authority on 23 December 2004 (23.12.2004)
- pages* _____ received by this Authority on _____
- ☐ the drawings:
- pages _____ 1-3 _____, as originally filed/furnished
- pages* _____ received by this Authority on _____
- pages* _____ received by this Authority on _____
- ☐ a sequence listing and/or any related table(s) – see Supplemental Box Relating to Sequence Listing.

3. ☐ The amendments have resulted in the cancellation of:

- ☐ the description, pages _____
- ☐ the claims, Nos. _____
- ☐ the drawings, sheets/figs _____
- ☐ the sequence listing (*specify*): _____
- ☐ any table(s) related to sequence listing (*specify*): _____

4. ☐ This report has been established as if (some of) the amendments annexed to this report and listed below had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).

- ☐ the description, pages _____
- ☐ the claims, Nos. _____
- ☐ the drawings, sheets/figs _____
- ☐ the sequence listing (*specify*): _____
- ☐ any table(s) related to sequence listing (*specify*): _____

* If item 4 applies, some or all of those sheets may be marked "superseded."

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.
PCT/CH 02/00582

V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Claims	1-25	YES
	Claims		NO
Inventive step (IS)	Claims	1-25	YES
	Claims		NO
Industrial applicability (IA)	Claims	1-25	YES
	Claims		NO

2. Citations and explanations

This report makes reference to the following document:

D1: WO 00/35383 A (DIMSO SA; GAUCHET FABIEN (FR))
22 June 2000 (2000-06-22)

D1, which is considered to represent the prior art closest to the subject matter of claim 1, discloses (the references in parentheses are to this document) (see page 5, line 4 to page 6, line 30 and figures 1-3 and 6):

intervertebral disc prosthesis or artificial vertebra with

- A) an essentially hollow cylindrical base body with an envelope (22) in the form of a bellows, a top end, a bottom end and a central longitudinal axis (14);
- B) an upper apposition plate (6) arranged at the top end of the base body transversely to the longitudinal axis (14), said plate being suitable for resting on the base plate of a vertebra, and
- C) a lower apposition plate (6) arranged at the bottom end of the base body transversely to the longitudinal axis (14), said plate being suitable for resting on the cover plate of a vertebra, and
- D) the envelope (22) in the form of a bellows configured

as a spring element with a defined spring rate.

The subject matter of claim 1 thus differs from the known intervertebral disc prosthesis in that the envelope comprises multiple bellows inserted into each other.

The subject matter of claim 1 is therefore novel (PCT Article 33(2)).

The problem addressed by the present invention may therefore be considered that of improving the stiffness of the spring element.

The solution proposed in claim 1 of the present application involves an inventive step (PCT Article 33(3)) since it is not obvious and none of the search report citations suggests such a solution.

Claims 2-25 are dependent on claim 1 and therefore likewise meet the PCT requirements for novelty and independent step.

Note:

On entering the regional phase, the applicant should take the following points into consideration:

The description should have cited D1 and briefly outlined the prior art disclosed therein.